Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney Elise R. Heilbrunn, Reg. No. 42,649 on December 16, 2009.

The application has been amended as follows:

Claims

6. (Currently Amended) A <u>non-transitory</u> computer-readable medium <u>comprising memory,</u> the computer readable medium storing thereon instructions for processing a service request in a network device, the computer-readable medium storing thereon:

instructions for sending a plurality of response packets in response to receiving a service request, each of the plurality of response packets identifying a different type of service via which to send a corresponding one of the plurality of response packets, wherein the type of service identifies a Service Provider of the Internet such that each of the plurality of response packets identifies a different one of the plurality of Service Providers of the Internet;

instructions for maintaining a mapping of each different type of service to an IP address, thereby enabling the service request to be processed via an IP address associated with a type of service identified in a first one of the plurality of response packets to be received, wherein the type of service identified in the first one of the plurality of response packets to be received identifies one of the plurality of Service Providers of the Internet; and

instructions for providing the IP address of the one of the plurality of Service Providers of the Internet that is mapped to the type of service identified in the first one of the plurality of response packets to be received;

wherein maintaining the mapping comprises maintaining a plurality of A-records, each of the A-records having a type of service field adapted for indicating a type of service that corresponds to one of the plurality of Service Providers of the Internet and wherein receiving the request comprises receiving a DNS A-record request.

8. (Currently Amended) A network device adapted for processing a service request, comprising:

a processor and a memory;

means for sending a plurality of packets in response to receiving a service request, each of the plurality of packets identifying a different type of service via which to send a corresponding one of the plurality of response packets, wherein the type of service identifies a Service Provider of the Internet such that each of the plurality of response packets identifies a different one of a plurality of Service Providers of the Internet;

means for maintaining a mapping of each different type of service to an IP address, thereby enabling the service request to be processed via an IP address associated with a type of service identified in a first one of the plurality of packets to be received, wherein the type of service identified in the first one of the plurality of packets to be received identifies one of the plurality of Service Providers of the Internet; and

means for providing the IP address of the one of the plurality of Service Providers of the Internet that is mapped to the type of service identified in the first one of the plurality of packets to be received;

wherein maintaining the mapping comprises maintaining a plurality of A-records, each of the A-records having a type of service field adapted for indicating a type of service that corresponds to one of

the plurality of Service Providers of the Internet and wherein receiving the request comprises receiving a

DNS A-record request.

16. (Currently Amended) The ~~network device~~ method as recited in claim 15, wherein each of the plurality

of A-records includes a different IP address that is mapped to a different one of the plurality of Service

Providers of the Internet.

17. (Currently Amended) The ~~network device~~ method as recited in claim 16, wherein each of the plurality

of A-records further includes a field adapted for identifying the one of the plurality of Service Providers

of the Internet.

18. (Currently Amended) The ~~network device~~ method as recited in claim 17, ~~at least one of the processor~~

~~or the memory being~~ further ~~adapted for~~ comprising: maintaining a table of A-records that includes the

plurality of A-records.

23. (Currently Amended) A non-transitory computer-readable medium comprising memory storing

thereon instructions for processing a DNS request in a network device, the computer-readable medium

storing thereon the following instructions:

      instructions for processing a DNS request that has been received, the DNS request indicating a

domain name for which an IP address is requested;

      instructions for transmitting a plurality of DNS responses in response to the DNS request, each of

the plurality of DNS responses being transmitted via a different path associated with a different type of

service, wherein the type of service identifies or is mapped to a Service Provider of the Internet such that

each of the plurality of DNS responses is transmitted via a different one of a plurality of Service Providers of the Internet; and

instructions for providing an IP address of the one of the plurality of Service Providers of the Internet via which a first one of the plurality of DNS responses to be received has been transmitted;

wherein transmitting a plurality of DNS responses comprises transmitting the plurality of DNS responses to a client DNS server associated with a client initiating the DNS request;

wherein the client DNS server is configured to identify a first one of the plurality of DNS responses to be received from the network device and to respond with an IP address of the one of the plurality of Service Providers of the Internet corresponding to the type of service identified in the first one of the plurality of DNS responses;

wherein the client DNS server is further configured to obtain the type of service from the first one of the plurality of DNS responses and obtain an IP address of the one of the plurality of Service Providers corresponding to the type of service from a mapping table.

25. (Currently Amended) A system adapted for processing a DNS request, comprising:

a processor and a memory;

means for receiving a DNS request indicating a domain name for which an IP address is requested;

means for transmitting a plurality of DNS responses in response to the DNS request, each of the plurality of DNS responses being transmitted via a different path associated with a different type of service, wherein the type of service identifies or is mapped to a Service Provider of the Internet such that each of the plurality of DNS responses is transmitted via a different one of a plurality of Service Providers of the Internet; and

means for providing an IP address of the one of the plurality of Service Providers of the Internet

via which a first one of the plurality of DNS responses to be received has been transmitted;

wherein transmitting a plurality of DNS responses comprises transmitting the plurality of DNS

responses to a client DNS server associated with a client initiating the DNS request;

wherein the client DNS server is configured to identify a first one of the plurality of DNS

responses to be received from the network device and to respond with an IP address of the one of the

plurality of Service Providers of the Internet corresponding to the type of service identified in the first one

of the plurality of DNS responses;

wherein the client DNS server is further configured to obtain the type of service from the first one

of the plurality of DNS responses and obtain an IP address of the one of the plurality of Service Providers

corresponding to the type of service from a mapping table.

26. (Currently Amended) A system for selecting an Internet Service Provider via which to process a client

request, comprising:

a network device comprising a processor adapted for receiving a DNS request indicating a

domain name for which an IP address is requested and transmitting a plurality of DNS responses to a

client DNS server associated with a client initiating the DNS request, each of the plurality of DNS

responses being transmitted via a different path associated with a different type of service, wherein the

type of service identifies a Service Provider of the Internet such that each of the plurality of DNS

responses is transmitted via a different one of a plurality of Service Providers of the Internet;

one or more intermediate routers configured to perform next-hop policy based routing based on

the type of service; and

a client DNS server associated with a client initiating the DNS request, the client DNS server

being configured to identify a first one of the plurality of DNS responses to be received from the network

device and to respond to the client with an IP address of the one of the plurality of Service Providers of

the Internet corresponding to the type of service identified in the first one of the plurality of DNS

responses;

wherein the client DNS server is further configured to obtain the type of service from the first one

of the plurality of DNS responses and obtain an IP address of the one of the plurality of Service Providers

corresponding to the type of service from a mapping table.

53. (Currently Amended) An apparatus, comprising:

a processor and a memory;

means for receiving a plurality of DNS responses from a network device by a client DNS server,

the plurality of DNS responses being transmitted by the network device in response to a DNS request

indicating a domain name for which an IP address is requested, wherein the client DNS server is

associated with a client initiating the DNS request, each of the plurality of DNS responses being

transmitted via a different path associated with a different type of service, wherein the type of service

identifies or is mapped to a Service Provider of the Internet such that each of the plurality of DNS

responses is transmitted via a different one of a plurality of Service Providers of the Internet;

means for identifying by the client DNS server a first one of the plurality of DNS responses to be

received from the network device;

means for obtaining by the client DNS server the type of service from the first one of the plurality

of DNS responses to be received from the network device;

means for obtaining by the client DNS server an IP address of the one of the plurality of Service

Providers corresponding to the type of service from a mapping table; and

means for providing by the client DNS server the IP address of the one of the plurality of Service

Providers of the Internet corresponding to the type of service identified in the first one of the plurality of

DNS responses, thereby providing an IP address of the one of the plurality of Service Providers of the

Internet via which a first one of the plurality of DNS responses to be received has been transmitted.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Joshua Joo who telephone number is 571 272-3966. If attempts to reach the examiner by

telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915.

/J. J./
Examiner, Art Unit 2454
/NATHAN FLYNN/

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